

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,781,232 B2  
APPLICATION NO. : 10/633829  
DATED : August 24, 2004  
INVENTOR(S) : Joseph I. Rubin

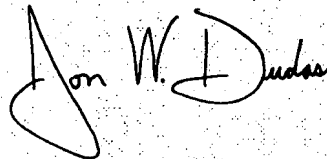
Page 1 of 5

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page showing illustrative figure, should be deleted and susbtitute therefor the attached title page.

Signed and Sealed this

First Day of May, 2007

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized with a large, looping initial "J" and a cursive "Dudas".

JON W. DUDAS

*Director of the United States Patent and Trademark Office*

(12) **United States Patent**  
Rubin

(10) Patent No.: **US 6,781,232 B2**  
(45) Date of Patent: **Aug. 24, 2004**

(54) **SAMPLE PREPARATION APPARATUS AND METHOD**

(75) Inventor: **Joseph I. Rubin, Monterey Park, CA (US)**

(73) Assignee: **Ultra Tec Manufacturing, Inc., Santa Ana, CA (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/633,829**

(22) Filed: **Aug. 4, 2003**

(65) **Prior Publication Data**

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**Related U.S. Application Data**

(62) Division of application No. 09/907,354, filed on Jul. 17, 2001, now Pat. No. 6,630,369.

(51) Int. Cl.<sup>7</sup> ..... **H01L 23/10**

(52) U.S. Cl. .... **257/707; 438/15**

(58) Field of Search ..... **257/707, 787; 438/15**

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*Primary Examiner—David Nelms*

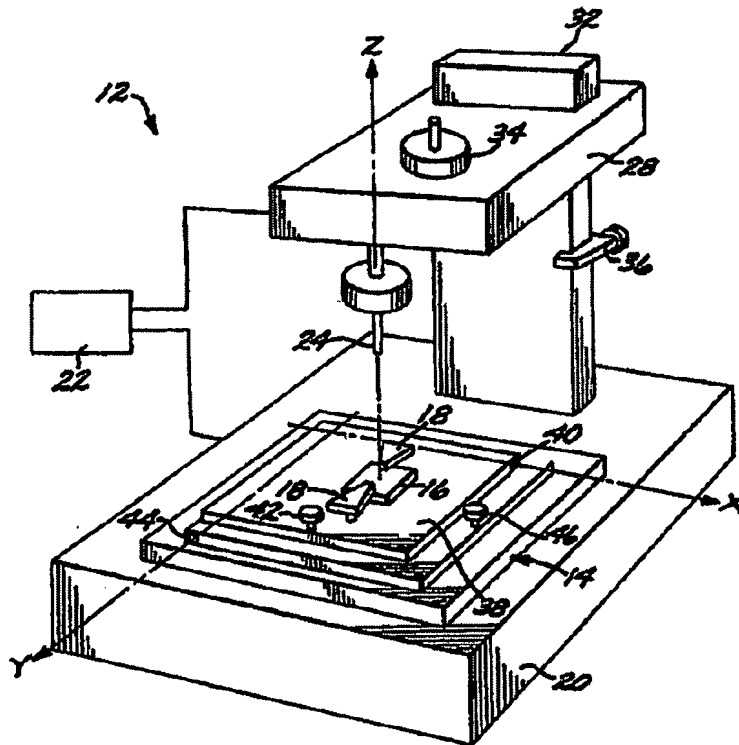
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(57) **ABSTRACT**

A apparatus and method for forming windows in semiconductor devices to enable visualization of the circuitry therein while electrically intact. The device is affixed to a table that is oscillated in the X and Y directions while a succession of rotating tools are brought to bear against the surface of the device in the Z direction under a constant force. The force is adjustable so as to allow the tool to float on the surface of the workpiece.

**5 Claims, 3 Drawing Sheets**



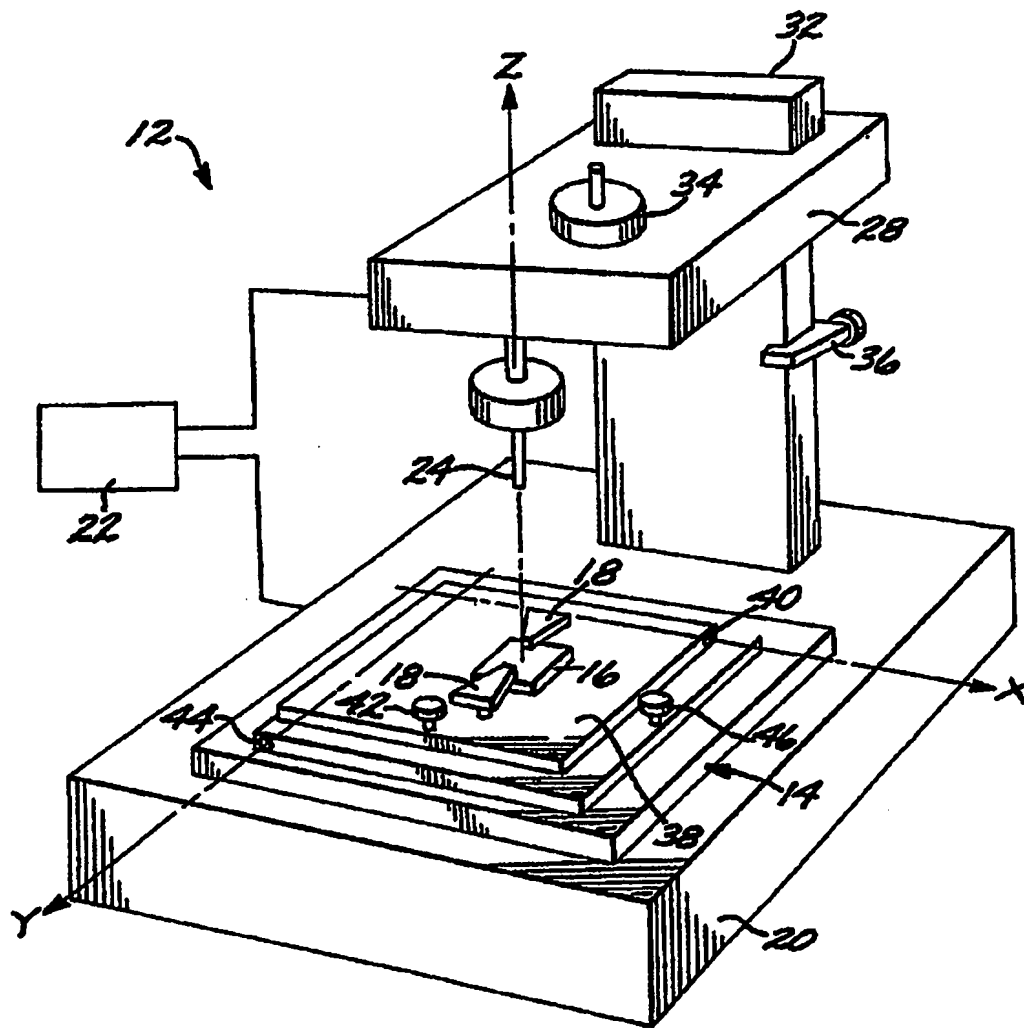
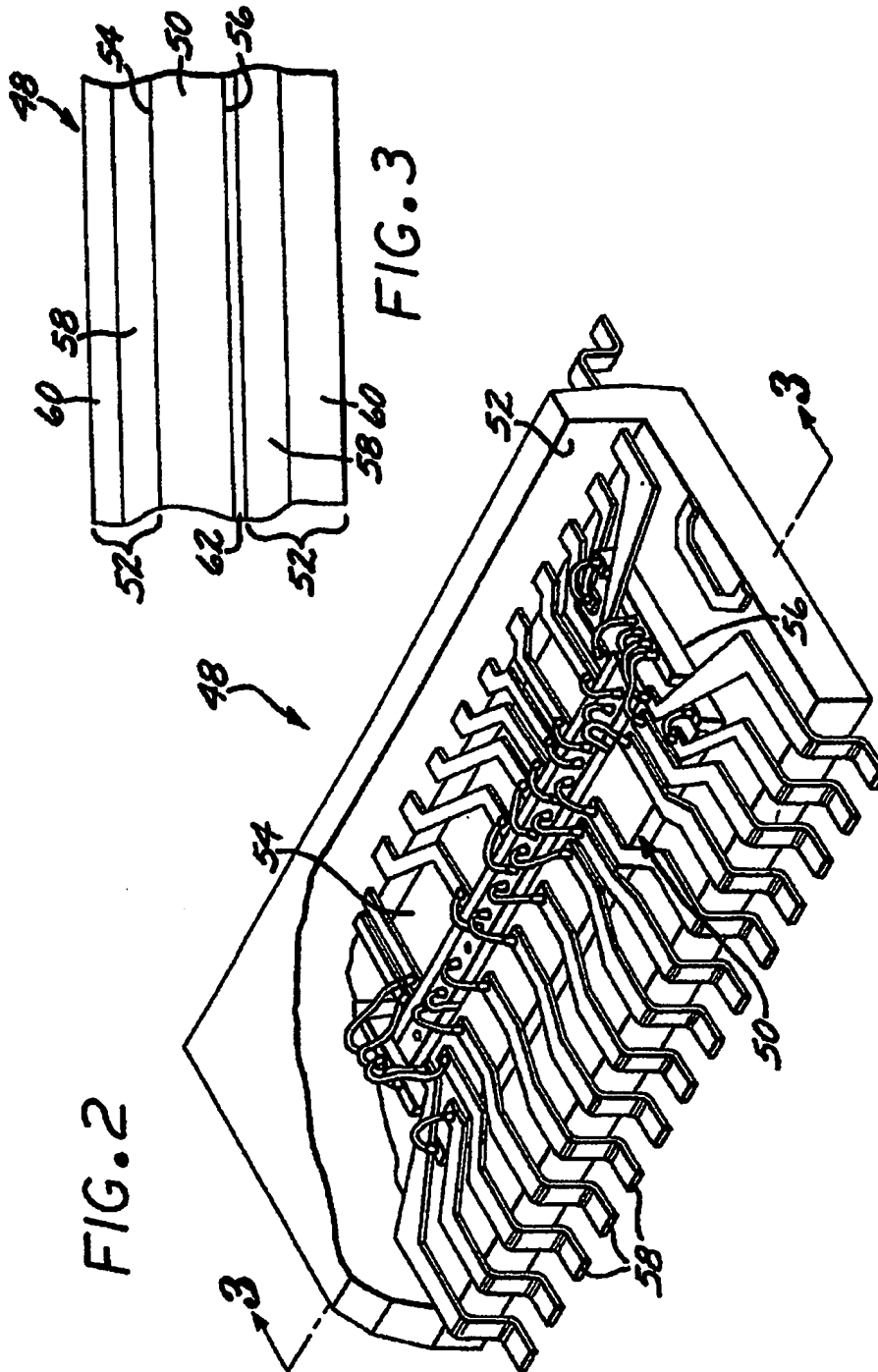


FIG. 1



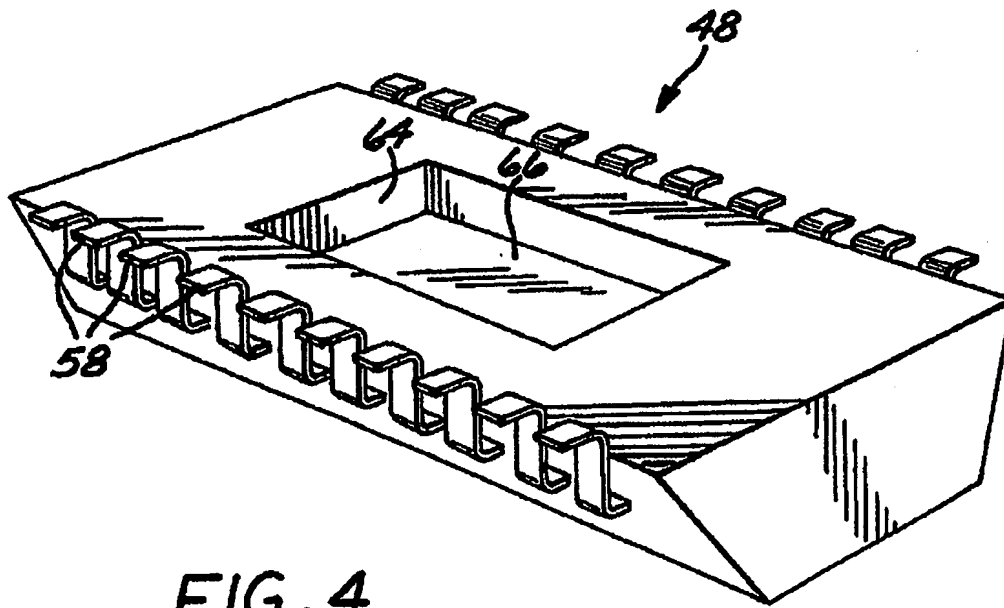


FIG. 4